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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/587,092	05/31/2000	Steven R. Hoffman	VISAP026	6899
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BEYER WEAVER LLP P.O. BOX 70250 OAKLAND, CA 94612-0250			EXAMINER BORLINGHAUS, JASON M	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/587,092

Applicant(s)

HOFFMAN ET AL.

Examiner

Jason M. Borlinghaus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4, 5, 7-9, 11, 12, 14, 15 and 23-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5, 7-9, 11, 12, 14, 15 and 23-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/13/07 & 6/25/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 4 – 5, 7 - 9, 11 - 12, 14 - 15 and 23 – 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rankl (Rankl, W. & Effing, W. *Smartcard Handbook*. John Wiley & Sons. West Sussex, England. 1997. pp. 21 – 23, 327 – 353 and 363 - 368), Manterfield (Manterfield, Richard. *Telecommunications Signalling*. Institution of Electrical Engineers. London, England. January 1, 1999. p. 141) and Admissions (applicant's arguments filed 10/23/06, p. 9; applicant's arguments filed 08/09/07, p. 9).

Regarding Claim 1, Rankl discloses a smart card loading system (Mondex system) for loading value over a telecommunications network (telephone system) onto a

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smart card (Mondex smartcard) said smart card loading system (see pp. 342 - 344)

comprising:

- a smart card (Mondex smartcard). (see pp. 342 - 344):
- a telephone handset (telephone with a built-in card reader) in communication with said telecommunications network (telephone system). (see p. 344);
- a smart card reader (telephone with a built-in card reader) for communicating with a said smart card when said smart is inserted in said handset. (see p. 344);
- said handset being arranged to generate a request message to load said value onto said smart card and to receive a response message to load said value onto said smart card. (During value transfer phase, Smart Card 2 informs Smart Card 1 of the requested sum. The requested amount is debited on Smart Card 1 and is sent to Smart Card 2). (see p. 346);
- an input interface (see wallet, figure 12.16, p. 344) for indicating a value to be loaded onto said smart card (see p. 344);
- said handset being arranged to generate a message request to load said value (sum) onto said smart card ("value transfer" phase requesting sum) and to receive a response message (transmission of funds and digital signature) to load (credit) said value (sum) onto said smart card (see pp. 345 - 346.)

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- a fund issuer computer (bank computer) arranged to receive said request message and to debit a consumer account with said smart card. (see p. 344);
- an authentication protocol arranged to receive said request and to authenticate said smart card whereby said smart card is authorized to load said value via handset (during “value transfer” phase Smart Card 1 checks authenticity of Smart Card 2, while a bank transfer requires submission of authenticating PIN number with transfer request). (see p. 346); and
- whereby said smart card may be authorized to load said value via said telephone handset. (supra, see p. 344).

Rankl also discloses a smart card loading system for loading value over a network onto a smart card (inter-sector electronic purse) said smart card loading system comprising (see pp. 336 – 337):

- a smart card (inter-sector electronic purse – see p. 336);
- a fund issuer computer (PPSAM) arranged to receive said request message (first purse instruction). (see p. 337);
- an authentication computer (PPSAM) arranged to receive said request message and to authenticate said smart card (authenticate signature S_1 – see p. 337);
- whereby said smart card may be authorized to load said value via said terminal. (“Again, this only relays the data to the card, this time with the instruction CREDIT IEP.” – see p. 337); and

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- said message (cryptographic “signature S_2 ”) is serving as command input (relays data to the card with the instruction CREDIT IEP) to said smart card used to control operation of said smart card. (see pp. 336 – 337).

Rankl also discloses a wireless system (GSM Network) comprising:

- a mobile telephone handset (see mobile equipment, figure 13.2, p. 363) in communication with said telecommunications network;
- said handset including a subscriber identification module (see SIM, figure 13.2, p. 363) that is separate from said smart card and functions to allow a user to access telecommunications network. (“The SIM’s task is to permit network access only to authorized persons...” – see p. 364);
- a gateway computer (mobile services switching center) arranged to receive said message from said handset over said telecommunications network and retransmit (forwarding) said message, said gateway computer (mobile services switching center) being further arranged to receive said message and to retransmit (forward) said message to said handset (mobile equipment). (see p. 363); and
- wherein said telecommunications network is a wireless network (see common air interface, see figure 13.2, p. 363).

Rankl does not teach wherein said response message is implemented as an alphanumeric message integrated within a Short Message Service (SMS) message of said telecommunications network.

Manterfield and Admission disclose a system wherein:

- information is transmitted as an alphanumeric message integrated within a Short Message Service (SMS) message. (see Manterfield – p. 141 or Admission – p. 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the smart-card loading system (Mondex system), as disclosed by Rankl, by incorporating the standard computer network and protocols for smart-card transactions (inter-sector electronic purse), as disclosed by Rankl, to allow the smart-card loading system to utilize the standard and conventional technologies and/or protocols of such systems.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified the telephone smart-card loading system (Mondex system), as disclosed by Rankl, by incorporating wireless technology (GSM network), as disclosed by Rankl, since it has been held that making an old device or movable without producing any new and unexpected result involves only routine skill in the art. *In re Lindberg*, 93 USPQ 23 (CCPA 1952).

It would have been obvious to one of ordinary skill at the time the invention was made to have modified Rankl to allow for any existing data transmission standard, such as alphanumeric messages transmitted via Short Message Service, as disclosed by Manterfield and Admission, to be utilized as that the inventor desired for transmission of the authentication response certification. *In re Kuhle*, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975).

Regarding Claim 4, Rankl discloses a smart card loading system wherein:

- said authentication computer (PPSAM) authenticates said smart card (inter-sector electronic purse) using a first cryptographic signature (signature S_1) and generates a second cryptographic signature (signature S_2) to authenticate a load response (CREDIT IEP), whereby said transaction is secure. (see p. 337).

Regarding Claim 5, Claim 5 recites similar limitations to Claims 1 and 4, in combination, and is therefore rejected using the same art and rationale as applied in the rejection of Claims 1 and 4, in combination. Claim 5 differs from Claims 1 and 4 in that Claim 5 is for a smart card loading system further comprising:

- the smart card is able to be removed from the handset to interface with a point-of-sale terminal through a contact interface with the point-of-sale terminal.

Rankl discloses a smart-card loading system further comprising:

- the smart card is able to be removed from the telephone handset to interface with a point-of sale terminal (trader terminal) (pp. 344 – 345); and
- the smart card is able to interface with a point-of sale terminal through a contact interface with the point-of-sale terminal. (pp. 21 – 23).

Regarding Claim 7, Rankl discloses a smart card loading system wherein:

- said authentication response certificate (cryptographic “signature S_2 ”) is implemented within a telecommunications network which serves as command input to the smart card (relays data to the card with the

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instruction CREDIT IEP) used to control operation of said smart card. (see pp. 336 – 337)

Rankl does not teach that such certificate is implemented as an alphanumeric message integrated within a Short Message Service (SMS) message.

Manterfield and Admission disclose a system wherein:

- information is transmitted as an alphanumeric message integrated within a Short Message Service (SMS) message. (see Manterfield – p. 141 or Admission – p. 9).

It would have been obvious to one of ordinary skill at the time the invention was made to have modified Rankl to allow for any existing data transmission standard, such as alphanumeric messages transmitted via Short Message Service, as disclosed by Manterfield and Admission, to be utilized as that the inventor desired for transmission of the authentication response certification. *In re Kuhle*, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975).

Regarding Claim 8, Rankl discloses a smart-card loading system:

- wherein in response to a successful load (confirm successful updating), said handset (terminal) is arranged to generate a transaction certificate (signature S_3) to be used for irrepudiation. (see p. 337).

Regarding Claim 24, Rankl discloses a method further comprising:

- removing said smart card from said handset ("telephone with built-in card reader" following value-loading). (see p. 344);

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- placing said removed smart card ("the Smart Card") into association with a smart card reader ("the wallet"). (see p. 344); and
- using said smart card reader ("the wallet") to debit said smart card to perform a purchase. (see p. 344).

Regarding Claim 9, 11 - 12, 14 - 15, 23 and 25, Claims 9, 11 - 12, 14 - 15, 23 and 25 recite similar limitations as claimed in previously rejected claims, would have been obvious based upon previously rejected claims, or are otherwise disclosed by the prior art applied in previously rejected claims. Such claim limitations are therefore rejected using the same art and rationale as previously utilized.

Response to Arguments

Applicant's arguments filed 08/09/07 have been fully considered but they are not persuasive.

Rejection – Alphanumeric message serving as command input

Applicant argues that cited prior art references fail to teach the newly amended claim language of "said alphanumeric message serving as a command input to said smart card used to control operation of said smart card."

Rankl discloses:

The terminal's task after this instruction is only to relay the received data elements to the PPSAM. Here the data is checked against the permitted range of values, and both the card- specific key KD_{PPSAM} and the session key KSE_{PPSAM} are generated. If the subsequent S_1 check is successful, then the card is authenticated as it must know the secret key for calculating S_1 . The PPSAM then prepares a signature S_2 and sends it to the terminal together with the key information IK_{PPSAM} . **Again, this only relays the data to the card, this time with the instruction CREDIT IEP.**

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The card now checks the signature S_2 . If this test is successful, the PPSAM has also been authenticated by the IEP. The balance BAL_{IEP} is then updated in the purse. The IEP then produces a third signature S_3 , which is sent to the terminal to confirm successful updating of the balance. The final instruction to the PPSAM provides this signature, which concludes the whole loading transaction. (emphasis added, see p. 337).

Examiner asserts that Rankl discloses the transmission of a message (cryptographic signatures and instructions) which serve as command input (authentication and instructed actions) to said smart card used to control operation of said smart card.

Admittedly, Rankl does not teach that the transmitted message is an alphanumeric message nor that such message is integrated within a Short Message Service (SMS).

However, Manterfield discloses:

8.4.5 Short Message Service (SMS)

The Short Message Service (SMS) allows an alphanumeric message to be delivered to or from the mobile station. (see p. 141).

Applicant even admits as much in his arguments filed 08/09/07:

Using this technique, the present invention can transmit important commands and security data (such as cryptographic certificates) to a smart card. Such a feature is not shown by the Manterfield reference. **Manterfield simply discloses the existence of SMS messages. As known in the art at the time, an SMS message is merely a text message sent from one person to another for the receiving person to read.** There is no disclosure in Manterfield of a text message being used to control operation of a smart card. The Office action states that it would have been obvious to one of skill in the art to modify the Rankl reference. But, there is no disclosure in Manterfield of any motivation to combine an alphanumeric message with the techniques of Rankl. (emphasis added, p. 9).

Examiner asserts that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Rankl to allow transmission and

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receipt of command input via any conventional and standard means known at the of the invention. Short Message Service (SMS) and its transmission of alphanumeric messages was known at the time. Therefore, Examiner asserts that it would have been obvious to have modified RankI to incorporate the use of a standard and conventional transmission format that was known at the time of invention.

Additionally, Examiner asserts that usage of such a transmission format would have been obvious as SMS is utilized to transmit data to mobile stations (see Manterfield, p. 141) and RankI utilizes a mobile station to relay information to its smart cards.

In response to applicant's argument that there is no suggestion to combine the references within the cited prior art references themselves, the Courts have stated that "[a] suggestion, teaching, or motivation to combine the relevant prior art teachings does not have to be found explicitly in the prior art, as the teaching, motivation, or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references...The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art... there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 78 USPQ2d 1329, 1336 (CAFC 2006). Examiner asserts that he can and/or has provided such "articulated reasoning" to support the legal conclusion of obviousness.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

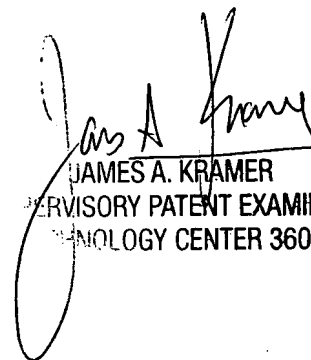
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Borlinghaus whose telephone number is (571) 272-6924. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on (571) 272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason M Borlinghaus (JMB)

October 28, 2007

 10.29.07
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